



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square
New Britain, Connecticut 06051
Phone: (860) 827-2935
Fax: (860) 827-2950

August 6, 2002

Peter W. van Wilgen
SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-002-006-008-108-115-020719** - SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ansonia, Beacon Falls, Bethany, Oxford, and Prospect, Connecticut.

Dear Mr. van Wilgen:


At a public meeting held on August 1, 2002, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated July 19, 2002. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility sites that would not increase tower heights, extend the boundaries of the tower site, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundaries to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. These facilities have also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on these towers.

This decision is under the exclusive jurisdiction of the Council. Any additional change to these facilities will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,


Mortimer A. Gelston
Chairman

MAG/laf

c: See attached list.

- c: Honorable James T. DellaVolpe, Mayor, City of Ansonia
- Peter Crabtree, Zoning Enforcement Officer, City of Ansonia
- Honorable Richard Mihalcik, First Selectman, Town of Beacon Falls
- Brian Herb, Zoning Enforcement Officer, Town of Beacon Falls
- Honorable Craig A. Stahl, First Selectman, Town of Bethany
- Robert Brinton, Zoning Enforcement Officer, Town of Bethany
- Honorable Kathy P. Johnson, First Selectman, Town of Oxford
- Dave Robinson, Planning and Zoning Chairman, Town of Oxford
- Honorable Robert J. Chatfield, Mayor, Town of Prospect
- William J. Donovan, Zoning Enforcement Officer, Town of Prospect



SNET Mobility, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7730
Fax: (860) 513-7190

Peter W. van Wilgen
Senior Manager – Construction

HAND DELIVERED

July 19, 2002

RECEIVED

JUL 19 2002

CONNECTICUT
SITING COUNCIL

Mr. Mortimer A. Gelston, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Re: SNET Mobility, LLC notice of intent to modify existing telecommunications facilities located in Ansonia, Beacon Falls, Bethany, Oxford and Prospect

Dear Mr. Gelston:

In order to accommodate technological changes, implement E-911 capability and enhance system performance, SNET Mobility, LLC ("SNET" or "Cingular Wireless") plans to modify the antenna configurations at its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of each of the municipalities in which an affected cell site is located.

Attached are summary sheets detailing the planned changes, including power density calculations reflecting the change in the effect of Cingular's operations at each site. Also included is documentation of the structural sufficiency of each tower to accommodate the revised antenna configuration.

The changes to the facilities do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facilities will not be significantly changed or altered. Rather, the planned changes to the facilities fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

Mr. Mortimer A. Gelston

July 19, 2002

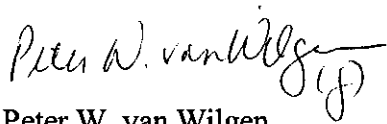
Page 2

1. The height of the overall structure will be unaffected. At almost all sites, new panel antennas approximately the same size will replace those previously installed. Tower mount amplifiers, approximately 5" x 9" x 13", will be added to the platform on which the panel antennas are mounted to enhance signal reception at the cell site. In addition, the mandated provision of E-911 capability will require installation of one LMU ("location measurement unit"), approximately 5 inches high, on either the tower, the equipment shelter or the ice bridge. One GPS receive-only antenna will be attached to the equipment shelter at each site. None of the modifications will extend the height of the tower.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. Radio frequency power density will increase due to use of additional channels broadcasting at higher power. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, Cingular Wireless respectfully submits that the proposed changes at the referenced sites constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7730 with questions concerning this matter. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, reading "Peter W. van Wilgen" with a stylized flourish at the end.

Peter W. van Wilgen
Senior Manager - Construction

Enclosures

CINGULAR WIRELESS
Antenna Modification

Site Address: 401 Wakelee Avenue, Ansonia
tower share 3/30/01

Tower Owner/Manager: SpectraSite Communications, Inc.

Antenna configuration Antenna center line -- 167'

Current and/or approved: up to 12 DB846H80 or comparable

Planned: 9 CSS DUO4-8670 or comparable
6 tower mount amplifiers
1 LMU (at 49.25')

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 4.2% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 5.9%, or an additional 1.7% of the standard.

Cingular Current

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET	167	880 - 894	19	100	0.0245	0.5867	4.2

Cingular Planned

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET TDMA	167	880 - 894	16	100	0.0206	0.5867	3.5
SNET GSM	167	880 - 894	2	296	0.0076	0.5867	1.3
SNET GSM	167	1930 - 1935	2	427	0.0110	1.0000	1.1
Total							5.9%

Structural information: Please see attached.



RE: CT-0006 [Ansonia Wakelee]
 Structural Evaluation of 196' Rohm Self Support Tower
 401 Wakelee Avenue
 Ansonia, CT 06401
 New Haven County

Date: June 11, 2002

SpectraSite Engineering has performed a *Level 1 evaluation*¹ for the above-noted tower. The evaluation was based on the requirements of the TIA/EIA-222-F Standard for a basic wind speed of **85 mph** without ice and 75% of the wind load with ½" radial ice.


Table 1. Existing and Proposed Antennas

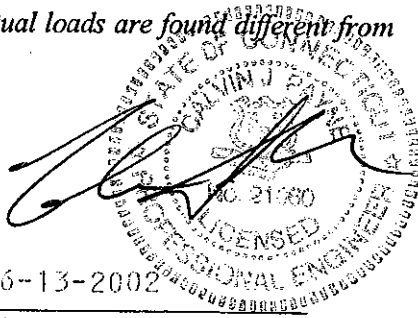
ELEVATION (Ft-AGL)	ANTENNA	CARRIER	COAX	NOTES
196	(9) Decibel DB844H90E-XY on Gate Boom Mounts	Nextel	(9) 1-1/4"	Existing
188	(6) Decibel DB980G90EM-S on Gate Boom Mounts	Sprint	(6) 1-5/8"	Existing
178	(12) Allgon 7129.16 on Gate Boom Mounts	Cellco	(12) 1-5/8"	Existing
167	(9) Decibel DB846H80-SX on Gate Boom Mounts	Cingular	(9) 1-1/4"	Remove Existing
167	(9) CSS DU04-8670 (6) CSS ADC Amplifiers on Gate Boom Mounts	Cingular	(9) 1-1/4"	Proposed Replacement
158	(12) Allgon 7184 on Gate Boom Mounts	AT&T	(12) 1-5/8"	Existing
148	(6) EMS RR90-17-02DP on Gate Boom Mounts	Voicestream	(6) 1-5/8"	Proposed
49.25	(1) Nokia CS72187-01 on Standoff Mount	Cingular	(1) 1/2"	Proposed

The subject tower and foundation are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Should any questions arise concerning this report please contact the undersigned.


 Raphael Mohamed, P. Eng.
 Project Engineer


 06-13-2002
 Calvin J. Payne, P.E.
 Chief Engineer

¹ Level 1 evaluation means:
 • the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads,
 • the design wind criteria is compared to the recent code requirements.

CINGULAR WIRELESS

Antenna Modification

Site Address: 664 Rimmon Hill Road, Beacon Falls
Docket No. 173

Tower Owner/Manager: Springwich Cellular Limited Partnership;
managed by SpectraSite Communications, Inc.

Antenna configuration Antenna center line – 162'

Current and/or approved: 12 ALP 110 11

Planned: 10 CSS DUO4-8670 or comparable
6 tower mount amplifiers
1 LMU (at 38')

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 4.4% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 6.3%, or an additional 1.9% of the standard.

Cingular Current

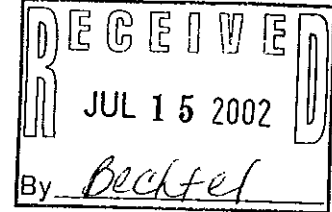
Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET	162	880 - 894	19	100	0.0260	0.5867	4.4

Cingular Planned

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET TDMA	162	880 - 894	16	100	0.0219	0.5867	3.7
SNET GSM	162	880 - 894	2	296	0.0081	0.5867	1.4
SNET GSM	162	1930 - 1935	2	427	0.0117	1.0000	1.2
Total							6.3%

Structural information: Please see attached.

Structural Evaluation of 160' Valmont Monopole
664 Rimmon Hill Road
Beacon Falls, CT 06403
New Haven County



Further to the structural analysis report, dated April 17, 2002, SpectraSite Engineering has performed a *Level 1 evaluation*¹ for the above-noted tower. The evaluation was based on the requirements of the TIA/EIA-222-F Standard for a basic wind speed of 85 mph without ice and 75% of the wind load with 1/2" radial ice.

Table 1. Existing and Proposed Antennas

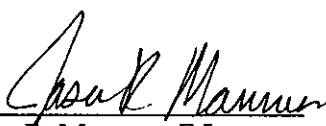
ELEVATION (Ft-AGL)	ANTENNA	CARRIER	COAX	NOTES
170	(3) Allgon 7250.02 w/ SCI Flush Mount & HDPMI	AT&T	(6) 1-5/8"	Existing
162	(10) DUO4-8670/ADC (6) TFA Amplifiers on Platform Mount w/ Handrails	Cingular	(10) 1-1/4"	Proposed Replacement
160	(10) Allgon 7120.0016 on Platform Mount w/ Handrails	SNET	(10) 1-1/4"	Remove Existing
147	(12) Swedcom 4' Panels on Platform Mount w/ Handrails	Bell Atlantic	(12) 1-1/4"	Existing
137	(12) Decibel DB844H90 on Low Profile Platform Mount	Nextel	(12) 7/8"	Existing
38	(1) Nokia CS72187/01 on Stand off Mount	Cingular	(1) 1/2"	Proposed

*Coax installed inside monopole

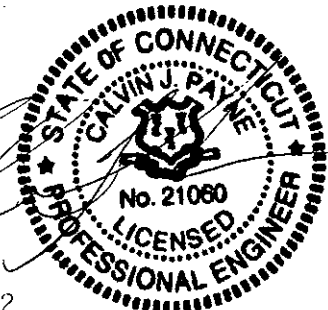
The subject tower and foundation are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Should any questions arise concerning this report please contact the undersigned.


Jason R. Manners, E.I.
Engineering Associate

07-02-2002
Calvin J. Payne, P.E.
Chief Engineer



¹ Level 1 evaluation means:

- the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads,
- the design wind criteria is compared to the recent code requirements.

CINGULAR WIRELESS
Antenna Modification

Site Address: 719 Amity Road, Bethany
Docket No. 168

Tower Owner/Manager: Springwich Cellular Limited Partnership;
managed by SpectraSite Communications, Inc.

Antenna configuration Antenna center line – 151'

Current and/or approved: 9 Swedcom ALP 110 11

Planned: 9 CSS DUO4-8670 or comparable
6 tower mount amplifiers
1 LMU (at 37.5')

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 5.1% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 7.2%, or an additional 2.1% of the standard.

Cingular Current

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET	151	880 - 894	19	100	0.0300	0.5867	5.1

Cingular Planned

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET TDMA	151	880 - 894	16	100	0.0252	0.5867	4.3
SNET GSM	151	880 - 894	2	296	0.0093	0.5867	1.6
SNET GSM	151	1930 - 1935	2	427	0.0135	1.0000	1.3
Total							7.2%

Structural information: Please see attached.



RE: CT-0061 [Bethany]
 Structural Evaluation of 150' Valmont Monopole
 719 Amity Road
 Bethany, CT 06524
 New Haven County

Date: May 22, 2002

SpectraSite Engineering has performed a *Level 1 evaluation*¹ for the above-noted tower. The evaluation was based on the requirements of the TIA/EIA-222-F Standard for a basic wind speed of **85 mph** without ice and 75% of the wind load with 1/2" radial ice.

Table 1. Existing and Proposed Antennas

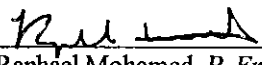
ELEVATION (Ft-AGL)	ANTENNA	CARRIER	COAX*	NOTES
158	(1) Decibel DB806	City	(1) 1-1/4"	Remove Existing
153	(1) Yagi	City	(1) 1/2"	
151	(9) Swedcom ALP 11011 on Platform Mount with Handrails	Cingular	(9) 1-1/4"	
158	(1) Decibel DB806	City	(1) 1-1/4"	Proposed Replacement
153	(1) Yagi	City	(1) 1/2"	
151	(9) CSS DUO4-8670 (6) CSS ADC Amplifiers on Platform Mount with Handrails	Cingular	(9) 1-1/4"	
140	(6) EMS RR90-17-02DP on Low Profile Platform Mount	Voicestream	(12) 1-5/8"	Existing
130	(12) Decibel DB980F90E-M on J-Arm Mounts	Sprint	(12) 1-5/8"	Proposed
37.5	(1) Nokia GS72187.01 on Standoff Mount	Cingular	(1) 1/2"	Proposed

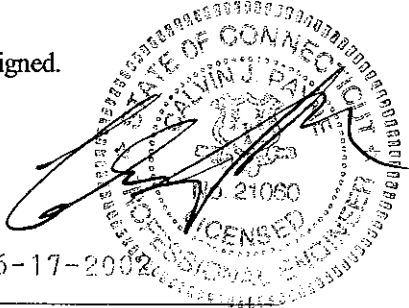
*Coax installed inside monopole.

The subject tower and foundation are *adequate* to support the above stated loads and *in conformance* with the requirements of TIA/EIA-222-F Standard.

The tower should be re-evaluated as future loads are added or if actual loads are found different from those mentioned in Table 1.

Should any questions arise concerning this report please contact the undersigned.


 Raphael Mohamed, P. Eng.
 Project Engineer


 06-17-2002
 Calvin J. Payne, P.E.
 Chief Engineer

¹ Level 1 evaluation means:

- the applied (existing and proposed) loads (Table 1) on the tower are compared to the original design loads,
- the design wind criteria is compared to the recent code requirements.

CINGULAR WIRELESS
Antenna Modification

Site Address: 338 Oxford Road, Oxford
EM-SCLP-108-010118 (2/8/01)

Tower Owner/Manager: Sprint Sites USA

Antenna configuration Antenna center line -- 140'

Current and/or approved: 12 DB 846H80 or comparable

Planned: 9 CSS DUO4-8670 or comparable
6 tower mount amplifiers
1 LMU (at 60')

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 5.9% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 8.4%, or an additional 2.5% of the standard.

Cingular Current

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET	140	880 - 894	19	100	0.0349	0.5867	5.9

Cingular Planned

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET TDMA	140	880 - 894	16	100	0.0294	0.5867	5.0
SNET GSM	140	880 - 894	2	296	0.0109	0.5867	1.9
SNET GSM	140	1930 - 1935	2	427	0.0157	1.0000	1.6
Total							8.4%

Structural information: Please see attached.

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis of the existing 150' monopole located 338 Oxford Road in Oxford, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 85 mph bare and 74 mph concurrent with ½" ice. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined on the following page of this report.

The results of the analysis indicate that the structure is in compliance with the loading conditions and the material and member sizes for the monopole and foundation. The monopole is considered feasible with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.

This analysis is based on:

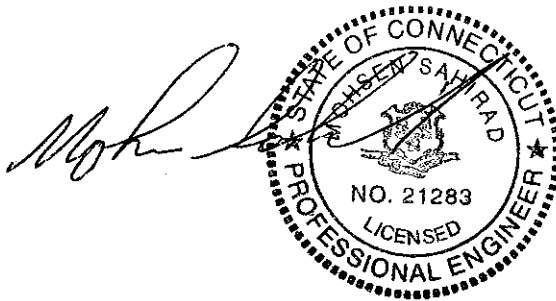
- 1) Tower and foundation design prepared by Engineered Endeavors Incorporated job no. 5724 dated October 1, 1999.
- 2) Antenna inventory as specified on the following page of this report.
- 3) TIA/EIA-222-F wind load classification.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumption of the antenna and mount configuration and that adequate space is available for routing the coaxial cable inside the monopole prior to installation. Notify the engineer immediately if any of the assumptions in this report are found to be other than specified.

If you should have any questions, please call.

Sincerely,

URS Corporation AES



Mohsen Sahirad, P.E.
Senior Structural Engineer

MS/rmn

cc: Richard R. Johanson – Bechtel
Doug Roberts – URS
I.A. – URS
A.A. – URS
CF/Book

Introduction:

A structural analysis of this 150' communications monopole was performed by URS Corporation AES (URS) for Cingular Wireless. The monopole is located on 338 Oxford Road in Oxford, Connecticut.

The structure is self-supporting and was manufactured by Summit Manufacturing, Incorporated job no. 2706. The monopole and its foundation were designed by Engineered Endeavors Incorporated job no. 5724 dated October 1, 1999.

This analysis was conducted to evaluate twist (rotation), sway (deflection), and stress on the monopole. The analysis was also used to find the effect of the forces to the foundation resulting from the antenna arrangement listed below.

The antenna inventory obtained:

Antenna Centerline Elevation

(9) DB980H90 antennas with low profile platform and (9) 1-5/8" coax cable within the monopole	Sprint	@ 150' elevation
(9) DUO4-8670 antennas and (6) amplifiers with low profile platform and (9) 1 1/4" coax cable within the monopole	Cingular (proposed)	@ 140' elevation
(12) DB844H90 antennas with low profile platform and (12) 1-5/8" coax cable within the monopole	Verizon	@ 130' elevation
(6) Allgon 7250.03 antennas with stand off arm and (12) 7/8" coax cable within the monopole	AT&T	@ 100' elevation
(1) GPS antenna with stand-off arm and (1) 1/2" coax cable	Cingular (proposed)	@ 60' elevation

Note: 1. Porthole may be required. Installation of porthole shall be done per manufacturer suggestion.

2. The user of this report shall conduct verification on the assumption of the antenna and mount configuration and that adequate space is available for routing the coaxial cable inside the monopole prior to installation. Notify the engineer immediately if any of the assumptions in this report are found to be other than specified.

Structural Analysis:

Methodology:

The structural analysis was done in accordance with TIA/EIA-222-F June 1996, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 2.0. Two load conditions were evaluated as shown below which were compared to allowable stresses according to AISC and TIA/EIA. The two load combinations were investigated in ERI Tower 2.0 to determine the stress, sway and rotation.

Load Condition 1 =	85 mph Wind Load (without ice) + Tower Dead Load
Load Condition 2 =	74 mph Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For purposes of this analysis, allowable stresses of the monopole members were increased by one-third in computing the load capacity.

Evaluation of Monopole:

Combined axial and bending stresses on the monopole structure were evaluated to compare with allowable stresses in accordance with AISC. The calculated stresses under the proposed loading were below the allowable stresses.

Analysis Results:

Our analysis determined that the structure will support the proposed new antenna arrangements under the analysis criteria outlined on the previous page. No further analysis was conducted on the tower foundation since the forces calculated were below the original design.

Our analysis for the proposed new antenna arrangement and load condition is provided in Appendix A.

Limitations/Assumptions:

This report is based on the following:

1. Tower inventory for antennas and mounts as listed in this report.
2. Tower is properly installed and maintained.
3. All members were as specified in the original design Documents and are in good condition.
4. All required members are in place.
5. All bolts are in place and are properly tightened.
6. Tower is in plumb condition.
7. All members are galvanized.
8. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
9. Foundations were properly constructed to support original design loads as specified in the original design Documents.
10. All co-axial cable is installed within the monopole, except as noted otherwise.

URS is not responsible for any modifications completed prior to or hereafter, which URS is not or was not directly involved. Modifications include but are not limited to:

1. Removing antennas
2. Adding antennas and amplifiers

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

CINGULAR WIRELESS
Antenna Modification

Site Address: Kluge Road, Prospect
tower share

Tower Owner/Manager: SBA

Antenna configuration Antenna center line – 157'

Current and/or approved: 9 Swedcom SC9014 or comparable

Planned: 9 CSS DUO4-8670 or comparable
6 tower mount amplifiers
3 diplexers
1 LMU (at 97')

Power Density:

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 4.7% of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 6.7%, or an additional 2.0% of the standard.

Cingular Current

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET	157	880 - 894	19	100	0.0277	0.5867	4.7

Cingular Planned

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
SNET TDMA	157	880 - 894	16	100	0.0233	0.5867	4.0
SNET GSM	157	880 - 894	2	296	0.0086	0.5867	1.5
SNET GSM	157	1930 - 1935	2	427	0.0125	1.0000	1.2
Total							6.7%

Structural information: Please see attached.

CHAZEN ENGINEERING & LAND SURVEYING CO., P.C.

Dutchess County Office
Phone: (845) 454-3980

New England Office
Phone: (781) 556-1037

20 Gurley Avenue, Troy, New York 12182
Phone: (518) 235-8050 Fax: (518) 235-8051
Email: albany@chazencompanies.com

Orange County Office
Phone: (845) 567-1133

North Country Office
Phone: (518) 812-0513

June 26, 2002

Mr. Ed Dupont
SBA Network Services, Inc.
80 Eastern Boulevard
Glastonbury, CT 06033

Re: Structural Review of the Prospect (Kluge Rd.) Monopole
TCC Job Number: NE061.00
SBA Site No.: CT00252-S
Cingular Site No.: 2214

Dear Mr. Dupont:

As requested, The Chazen Companies (TCC) has performed a structural review of the above referenced monopole located at 178 New Haven Road in the Town of Prospect, New Haven County, Connecticut. Our review is based on existing and proposed antenna information as provided by SBA, original design drawings by Fred A. Nudd Corporation, and analysis and tower modification calculations by Semaan Engineering Solutions (Semaan), dated May 6, 2002.

TCC has reviewed the above mentioned design calculations to determine the areas and elevations of the original design antennas to calculate the design forces and resulting bending moments. TCC then determined the areas and elevations of the existing and proposed antennas, from the information provided by SBA, to calculate the applied forces and moments. By direct comparison, the moments due to the existing and proposed antennas were determined to be less than the original design antennas' moments. TCC's recommendations are based on the existing and proposed antennas being within the original design parameters. TCC has not completed a structural analysis of the stresses in the individual components of the monopole, the monopole base plate, anchor bolts, or foundation.

Based on our review, the monopole is 157 feet tall and was designed to support four (4) antenna arrays consisting of (12) DB896 Panel antennas at elevations of 157 feet, 142 feet, 127 feet, and 112 feet above ground level (AGL).

Information provided by SBA indicates that currently there are nine (9) Swedcom SC9014 panel antennas for Cingular, nine (9) Decibel DB844H80 panel antennas for Nextel, nine (9) Allgon 7129.12 panel antennas for Verizon Wireless, and a future installation of six (6) Allgon 7250.03 panel antennas for AT&T Wireless on the monopole. Cingular Wireless proposes to install nine (9) CSS DUO4-8670 panel antennas with six (6) ADC 850/1900 Cleargain tower mounted amplifiers and three (3) ADC 850/1900 Diplexers mounted directly behind the proposed antennas at an elevation of 157 feet AGL upon removal of their existing antennas. Cingular Wireless is also proposing to install one (1) Kathrein 738449 antenna at 97' AGL.

The analysis and modification calculations provided indicate that the monopole was designed for a basic wind speed of 85 mph and $\frac{1}{2}$ " radial ice with wind/ice reduction in accordance with ANSI/TIA/EIA-222-F *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures*. Revision F of this standard is the newest revision, and thus meets or exceeds the requirements of the previous revision, which is referenced in the 1996 BOCA National Building Code. The Connecticut State Building Code requires that television and radio towers be designed in accordance with Section 3108.4 of the 1996 BOCA National Building Code. Therefore TCC can conclude that the monopole design meets or exceeds the Connecticut State Building Code.

Based upon this information, TCC has determined that the proposed Cingular installation can be added to the structure and does not exceed the original design parameters for the above referenced monopole. Our conclusion assumes that the monopole and foundation were constructed in accordance with all applicable local, state, and federal codes, the original design documents, and the tower modification package prepared by Semaan. However, TCC's review does not relieve the original or subsequent modification design engineer's responsibility for completeness or accuracy of work.

If you have any questions, or require any additional information please do not hesitate to contact this office.

Sincerely,



Richard Chazen, P.E.
Principal

ksp/

cc: Kelly Libolt, TCC
Kelly Phillips, TCC
Tim O'Byrne, TCC
File

